

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 19-37 are pending, Claims 19, 21, 36 and 37 have been amended, and Claim 38 having been canceled without prejudice or disclaimer by way of the present amendment.

Claims 19, 20-25, 30-33, and 36-38 were rejected as being unpatentable over Carini et al. (U.S. Patent No. 3,876,462, hereinafter Carini) in view of Hvizd, Jr. et al. (U.S. Patent No. 4,361,723); Claims 20 and 21 were rejected as being unpatentable over Carini in view of Hvizd and in further view of Elton et al. (U.S. Patent No. 5,066,881); Claim 26 was rejected as being unpatentable over Carini in view of Hvizd and in further view of Silver (U.S. Patent No. 4,384,944); Claim 27 was rejected as being unpatentable over Carini in view of Hvizd and Silver in further view of Robert et al. (U.S. Patent No. 5,530,206, hereinafter Robert); Claim 28 was rejected as being unpatentable over Carini in view of Hvizd and in further view of Yamanouchi et al. (U.S. Patent No. 4,894,284, hereinafter Yamanouchi); Claim 29 was rejected as being unpatentable over Carini in view of Hvizd and Silver and in further view of Yamanouchi; Claim 34 was rejected as being unpatentable over Carini in view of Hvizd and in further view of Breitenbach et al.; and Claim 35 was rejected as being unpatentable over Carini in view of Hvizd and in further view of Simmons et al. (U.S. Patent No. 4,997,995, hereinafter Simmons).

Claim 19 is amended to describe an insulated conductor for a high-voltage winding in an electric machine. The winding includes at least one insulated strand and a plurality of strands each being insulated from one another. An inner conductive layer surrounds the plurality of strands and contacts the at least one uninsulated strand. Support for the amendment to Claim 19 is found in the specification for example at page 9, lines 17-19. Thus, no new matter is added.

This feature of having insulated strands in the high-voltage winding of the electric machine is relevant, because when this high-voltage winding is exposed to large magnetic fields that are present in the electric machine, Eddy currents are suppressed by the insulation on the strands. These Eddy currents could become problematic for conventional conductors that do not include the insulated strands. The invention defined by amended Claim 19 overcomes that problem by including insulated strands to avoid the occurrence of long conductive paths by which Eddy currents could flow.

In contrast to the invention defined by amended Claim 19, both Carini and Hvizd are directed to conventional high-voltage electric cables, that have a single solid conductor (not strands of conductors) and are used as high-voltage power cables that are not exposed to high magnetic fields because they are not used in electric machines. Furthermore, because there is only one conductor, it is an impossibility for “strands” to be insulated from one another. Furthermore, there would be no motivation to modify the designs of Hvizd or Carini to include strands, and insulate the strands from one another as neither the insulated cable in Carini or in Hvizd are for use in an electric machine where high magnetic fields would be present. Accordingly, it is respectfully submitted that Claim 19 is patentably distinguishing over Carini in view of Hvizd. For substantially the same reasons, despite being of different scope and/or statutory class, it is respectfully submitted that Claims 22-25, 30-33 and 36-37 also patentably define over Carini in view of Hvizd.

With regard to Claims 20 and 21, a tertiary reference of Elton is asserted for its disclosure in Figure 7 of an insulated wire connected to ground. However, the conductor in Figure 7 of Elton does not cure the deficiencies discussed above with regard to Carini and Hvizd with regard to Claim 19. In that it does not describe a plurality of insulated strands and an uninsulated strand that contacts an inner conductive layer. Accordingly, it is

respectfully submitted that Claims 20 and 21 patentably define over Carini in view of Hvizd and Elton.

With regard to Claim 26, Silver is asserted for its disclosure of particular materials used in an insulated wire. However, Silver does not otherwise cure the deficiencies of Carini and Hvizd with regard to Claim 19, and therefore it is respectfully submitted that Claim 26 also patentably defines over the asserted prior art. For substantially the same reasons, it is respectfully submitted that Claim 27 patentably defines over the asserted prior art, including Robert which is asserted for its use of a polymer. Likewise, it is respectfully submitted that Claim 28 patentably defines over Carini in view of Hvizd and Yamanouchi, as Yamanouchi is asserted for its disclosure of a cross-linked insulated cable, but otherwise does not cure the deficiencies with regard to Claim 19.

Claims 29, 34 and 35 are all believed to also patentably define over the asserted prior art including the secondary references of Yamanouchi, Breitenbach and Simmons, as each of these tertiary references are asserted for a property of an insulating layer, but otherwise does not cure the deficiencies discussed above with regard to Claim 19. Accordingly, it is respectfully submitted that Claims 29, 34 and 35 also patentably define over the asserted prior art.

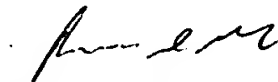
Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 19-37, as

Application No. 09/147,320
Reply to Office Action of June 15, 2004

amended, is patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)
BDL:smi

I:\ATTY\BDL\98470004-AM2.DOC